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Tennessee Hospitals Cut Costs and Improve Outcomes

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HOT SPRINGS, VA. – A collaboration among 10 hospitals in Tennessee has produced a boost in quality of care while also saving millions of dollars.

The collaboration began in 2005, when the initial participants – Erlanger Medical Center in Chattanooga, Vanderbilt University Medical Center in Nashville, and St. Francis Hospital–Memphis – took inspiration from the rollout of the American College of Surgeons' National Surgical Quality Improvement Project (NSQIP), said Dr. Joseph B. Cofer at the annual meeting of the Southern Surgical Association.

Successes so far have led BlueCross BlueShield of Tennessee (which bankrolled the operation) to extend its funding through 2012 for the 10 hospitals that are currently participating, said Dr. Cofer, an ACS Fellow and professor of surgery at the University of Tennessee, Chattanooga. And it made funds available for an additional 11 hospitals to join, which would bring the total to 21.

With data now complete for 2009 and 2010, the Tennessee Surgical Quality Collaborative reported that postoperative mortality was not significantly different from the first year to the second.

However, significant declines in postoperative complications in five areas – acute renal failure (25% drop), graft/flap failure (60% drop), ventilation for more than 48 hours (15% drop), superficial incisional surgical-site infection (19% drop), and wound disruption (34% drop) – resulted in total savings of $4.47 million.

Increases in postoperative complications in three areas – urinary tract infection (42% rise), pneumonia (23% rise), and deep vein thrombosis (35% rise) – cost $2.1 million.

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DR. COFER

Overall, the savings were at least $2 million for the 10 participating hospitals, said Dr. Cofer. But that number reflects only a sampling of cases from the 10 hospitals; if all the cases had been included, "we probably avoided about $8 million in costs over this year," he said.

Why this happened is not clear. It's possible that just being part of the NSQIP process improves monitoring and outcomes.

The Tennessee collaborative is now identifying exemplar hospitals and "sending out teams to dissect how they did it," said Dr. Cofer. Then, those best practices will be disseminated to other hospitals in the collaborative.

Dr. Cofer spearheaded the talks which culminated in a three-way partnership among the Blues, the Tennessee chapter of the ACS, and the Tennessee Hospital Association. In 2008, the Blues announced that it was giving the collaboration $2.5 million over the next 3 years.

Dr. J. David Richardson, an ACS Fellow, a discussant at the meeting, and chairman of the NSQIP committee at ACS, said, "it takes a tremendous effort to put a group like this together," The ACS is looking to expand the program, particularly beyond Veterans Affairs hospitals, said Dr. Richardson, professor and vice chairman of surgery at the University of Louisville (Ky.). The collaborative model is a way to spread the cost, so it may entice more participants, he said.

Dr. Joseph J. Tepas III, an ACS Fellow and professor of surgery at the University of Florida, Jacksonville, said in his discussion of the paper, "This report demonstrates that this engine of quality, fueled by real-time clinical data, produces results that are understandable to the nonphysician public."

He added that just participating in NSQIP likely improved the hospitals' quality. "The power of NSQIP is, first, in its surveillance," he said.

Dr. Tepas, Dr. Richardson, and several other discussants asked why there had been improvement in some clinical areas but not in others. Was this perhaps a change in surgical leadership, or – as Dr. Cofer suggested – the Hawthorne effect (the tendency of outcomes to improve when participants know they are being monitored)?

Lead author Dr. Oscar Guillamondegui had an answer: "There have been no real changes in leadership at any of these hospitals, but if you think about the cost of putting together an NSQIP program … for many of these hospitals, it's a bottom-line item that's not insubstantial," he said. "Most hospitals will push to have improvement of care just based on the fact they're putting that kind of funding into a system." Dr. Guillamondegui, an ACS Fellow, is in the division of trauma and surgical critical care at Vanderbilt University Medical Center, Nashville, Tenn. He also surmised that the Hawthorne effect may have played a part.

Dr. Cofer, Dr. Tepas, and Dr. Guillamondegui reported no conflicts. ■